Freight Transportation Profile—Kansas Freight Analysis Framework

Understanding future freight activity is important for matching infrastructure supply to demand and for assessing potential investment and operational strategies. To help decisionmakers identify areas in need of capacity improvements, the U.S. Department of Transportation developed the Freight Analysis Framework (FAF), a comprehensive national data and analysis tool, including county-to-county freight flows for the truck, rail, water, and air modes. FAF also forecasts freight activity in 2010 and 2020 for each of these modes. Information about the methodology used in developing FAF is available on the Office of Freight Management and Operations' website www.ops.fhwa.dot.gov/freight.

The U.S. freight transportation network moves a staggering volume of goods each year. Over 15 billion tons of goods, worth over \$9 trillion, were moved in 1998. The movement of bulk goods, such as grains, coal, and ores, still comprises a large share of the tonnage moved on the U.S. freight network. However, lighter and more valuable goods, such as computers and office equipment, now make up an increasing proportion of what is moved. FAF estimates that trucks carried about 71 percent of the total tonnage and 80 percent of the total value of U.S. shipments in 1998. By 2020, the U.S. transportation system is expected to handle about 23 billion tons of cargo valued at nearly \$30 trillion.

Kansas

Table 1 presents information on freight shipments that have either an origin or a destination in Kansas. As shown in the table, trucks moved a large percentage of the tonnage and value of shipments, followed by rail. Figures 1 and 2 show freight flows on the highway and rail modes.

Truck traffic is expected to grow throughout the state over the next 20 years. Much of the growth will occur in urban areas and on the Interstate highway system (Figures 3 and 4). Truck traffic moving to and from Kansas accounted for 19 percent of the average annual daily truck traffic (AADTT) on the FAF road network. Approximately 9 percent of truck traffic involved in-state shipments, and 38 percent involved trucks traveling across the state to other markets. About 34 percent of the AADTT were not identified with a route-specific origin or destination.

Table 2 shows the top five commodity groups shipped to, from, and within Kansas by all modes. The top commodities by weight are farm products and food and kindred products. By value, the top commodities are food or kindred products and transportation equipment.

Table 1. Freight Shipments To, From, and Within Kansas: 1998, 2010, and 2020

KANSAS	Tons (millions)			Value (billions \$)		
	1998	2010	2020	1998	2010	2020
State Total	248	342	410	162	297	457
By Mode						
Air	<1	<1	<1	3	7	12
Highway	190	261	311	144	264	406
Other ^a	<1	<1	<1	<1	<1	<1
Rail	58	80	98	15	26	39
Water	<1	<1	<1	<1	<1	<1
By Destination/Market						
Domestic	238	323	383	151	272	417
International	10	18	26	11	25	40

Note: Modal numbers may not add to totals due to rounding.

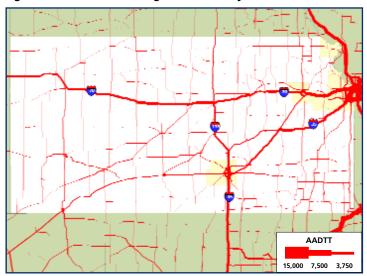
^a The "Other" category includes international shipments that moved via pipeline or by an unspecified mode.

Figure 1. Freight Flows To, From, and Within Kansas by Truck: 1998 (tons)



Federal Highway Administration

Figure 3. Estimated Average Annual Daily Truck Traffic: 1998



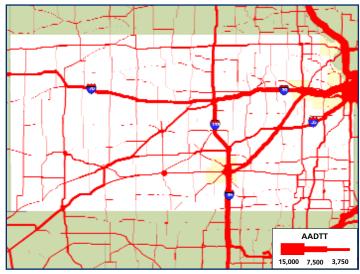
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Figure 2. Freight Flows To, From, and Within Kansas by Rail: 1998 (tons)



Federal Railroad Administration

Figure 4. Estimated Average Annual Daily Truck Traffic: 2020



Federal Highway Administration

Table 2. Top Five Commodities Shipped To, From, and Within Kansas by All Modes: 1998 and 2020

	Tons (millions)			Value (billions \$)	
Commodity	1998	2020	Commodity	1998	2020
Farm Products	80	108	Food/Kindred Products	29	98
Food/Kindred Products	32	66	Transportation Equipment	29	64
Nonmetallic Minerals	31	43	Farm Products	27	43
Petroleum/Coal Products	22	27	Secondary Traffic ^a	15	67
Secondary Traffic ^a	15	44	Chemicals/Allied Products	14	35

^a Secondary traffic is defined as freight flows to and from distribution centers or through intermodal facilities. No commodities are assigned to this intermediate step in the transportation process.

For More Information, Please Contact

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November 2002 FHWA-OP-03-055 EDL 13743 A series of FAF products are available on the website noted below. FAF outputs include freight flow maps for states, modes, and gateways; detailed databases on traffic flows and commodity movements; information on the methodologies used to develop FAF; and forecast assumptions.

The U.S. Department of Transportation, Bureau of Transportation Statistics (BTS) is also developing a series of state transportation profiles. For more information and to obtain a copy of the BTS reports, please call 202-366-DATA.



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